### 9087, 15821, and 15418, Methods and Compositions of remain Proteins and Oses Inventors: Rosana Kapeller-Libermann et al. U.S. Patent Appl. No.: Not Yet Assigned Express Mail # EL916936434US Attorney Docket No. 10147-52U1 Cust # 570

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18	26 78	46 138	66 198	86 258
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18	26	46 138	66 198	86 258	106 318
Ü	D GAC	A GCG	GGT	F	CIG
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.c GGG	D GAC	9 99C	P	A GCA	S AGC
SAC ATG	S TCG	Q CAG	Q CAG	A GCG	D GAC
_	CCC	L	Q CAG	K AAG	K AAA
G GTG	K AAG	999	E GAG	R CGC	TACC
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CAGC	A GCC	L	L	TACG	GGA
TGCT	O CAG	A GCC	S AGC	PCCC	E GAG
ອວວວ	L	L CTG	H	V GTG	EGAG
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CIGGGAGIGCGCCCGIGCICAGCC	A GCC	R	N AAC	A GCC	L
CTGG	TACC	R CGG	L	L CTA	E GAG
TICC	N AAC	R	S	F	WTGG
TGCI	A GCC	R	L	D GAC	N AAC
CTTG	I ATC	O CAG	K AAG	R	Q CAG
CCCI	L	L	Q CAG	F	V GTG
CCAG	N AAC	E GAG	R	L	D GAC
CCCI	D GAC	K AAA	L	R	E GAG
GCAG	$_{ m L}^{ m L}$	S AGC	E	R CGC	L CTA

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GACCCTAAGATGAAGGGACCICACTATAGGGCTCGAGCGGCCCCCGGGCAGGTGCTTTCGCCTTGGCAGGTGGGAGCA 

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146 438	166 498	186 558	206 618	226 678	246 738	266 798	286 858
A GCA	FTTC	V GTG	$_{\rm TGT}^{\rm C}$	R CGG	V GTC	L	R CGT
A GCT	D GAT	PCCA	V GTA	K AAG	K AAG	C	T ACG
V GTG	K AAG	Q CAA	E GAG	K AAG	EGAG	L	9 9
R CGA	FTT	M ATG	G GGG	D GAC	L	H	V GTG
E	PCCC	E GAG	FTTT	L	I ATC	TACC	N AAC
E GAA	Q CAG	F	GGT	K AAA	E GAA	K AAG	Y TAC
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TACT	OCAA	K AAA	K AAA	C TGT	E	EGAG	H CAC
TACC	$_{ m ITG}$	W TGG	999	A GCC	$_{ m TTG}$	F	F
A GCC	F	Q CAG	L	Y TAT	L	A GCC	K AAG
A GCA	A GCT	L	V GTG	M ATG	A GCT	Y TAT	L
O CAA	M ATG	F	R AGA	K AAG	M ATG	A GCC	D GAC
C	A GCC	K AAG	F	GGG	K AAG	L	GGA
K AAG	E GAG	D GAC	E GAG	TACT	E GAG	S TCT	GGG
TACC	A GCT	Y TAC	TACT	N AAC	9 9	V GTC	N AAT
A GCC	K AAG	F	F	K AAA	GGT	I ATT	M ATG
V GTG	R	A GCC	Y TAC	V GTG	K AAA	F	L
A GCC	L	S AGC	K AAG	Q CAG	K AAG	P	S AGC
Q CAG	T ACG	T	D GAC	V GTC	K AAG	S AGC	M ATG
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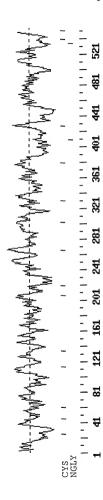
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X	TAC	Ω	GAC	ტ	GGG	Y	TAC	A	209	H	GAA	H	CAT	囝	GAG
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>	GTG	>	GTC	ß	TCT	H	ACC	Ω	GAC	Ω	GAT	×	AAA	×	AAG
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Ω	GAC	ы	GAA	Z	AAC	Ø	CAG	ß	TCC	H	ACA	0	CAA	Н	CIC
ц	CIG	H	CAT	ტ	299	⊢	ACC	×	TAT	ĸ	CGA	Н	CTG	ĸ	AGG
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466 1398	486 1458	506 1518	526 1578	546 1638	553 1662	
L CTA	I ATT	K AAA	L	K AAG		GGA ACAT AGGT
999	E GAA	F	GGA	S		GACATAATCCTCGAATGTTCCACACGTGGAAATCTGTGGA AACAATTCAAAAGACAGGCAAGCTCACTACTAGTAGAACAAT CTCAGTTTTCACTGAGGGCAGGGAAAAGGAACACTCAGGT
A GCT	A GCT	F TTC	T ACG	S TCA		AAAT CTAG
E GAA	I ATC	Q CAG	E	N AAT		GTGC SACTA
L	D GAC	K AAG	I ATA	GGT		CACAC AGCTC SGGAA
R	K AAA	D GAT	I ATT	E		SCA
PCCT	A GCC	K AAA	E	EGAG		AATG ACAG
F TTT	Y TAT	D GAC	E	C		CTCC
N AAC	V GTT	D GAT	Q CAG	G GGT		PATCA VITCA SITIT
I ATC	V GTG	F	W	T ACG		SACAJ AACAA CTCAC
T ACG	S TCA	e Gaa	A GCA	P		SGCTC ACAAA
K AAA	PCCT	V GTG	I ATA	R AGA		rcicc vaccz agiaz
F TTT	D GAC	999	PCCT	N AAC	* TAA	SGAG: ICAC! SATG!
F	P	R CGG	V GTT	CCC	L	AGCA( SACA: I'AAA(
H CAT	V GTG	V GTT	A GCT	D GAC	L TTA	AGGC/ SAGG( TTCA/
H CAT	F	E	GGT	N AAT	L TTG	AGACZ FTAGO FTTC
K AAA	P CCA	S	T ACA	L	C TGT	TACC. TCAG
R AGG	P CCC	F	A GCG	E GAA	V GTG	attgctctctttaccagacagcagcagcagtctcggctgacataatcctcgaatgttccacacactggaaatctgtgga atgagggctaatcagttaggagacatcacaacacaa
P	E	D GAT	F	EGAG	9	ATTGCTCTC ATGAGGGCT ITTATTTTC ITATTTTGA
DGAT	I ATT	D GAT	N AAC	F	S	ATT ATG TTT

### Fig. 1



ICCHHEOM. ICCECT

Fig. 2

T-VPTFRKAATFLED T-VPTFRKAATFLED

VONWELAEEGPIKDS ALQGIVATCASAPAP VONWELAEEGPTKDS ALQGLVATCASAPAP TLQQLAATCARDPGP INDWELSEAAAKDKA RINIINKFCKDGSKS LYDWDLAEGAAKDKA RONIINKYCKPDSKT VONWELAEEGPAKTS QGGPECNAAAEFLDD T-VPKYSQAVAFLED N-TPEFKLAAEFLDE EROPIGKRLFRDFLA EQOPIGRRLFRDFLA EQQPIGRRLFRDFLA EQQPIGRRLFRDFLA EKOPIGKRFFROYLD GRK7 GRK7 SGK064 69087 ST GRK7 OL

DFVTSAFYDKFLOWK DEVISAFYDKFLOWK DFLASPFYDRFLQWK DYQTSEFFEKFLQWK EYQGSQYFDKFLQWK RKAEAMAFLOEOPFK AKAEAMAFLOEOPFK AKAETMSFLQEQPFQ VKEATKEFLKGKPFT VODGVREFLKGKPFT KSVTDATFEEVMKNK QAATTEEERVAAVTL QAATTEEERVAAVTL RAASTDEERKTLVEQ KAVTDKDFEEVMG-Q ---QSFLSQDLATKC GNPOPFLSOAVATKC GNPOPFLSOAVATKC S--LTFLTGDVATKC F--LTFLSGEPAEKC GRK7 69087 GRK7 SGK064 ST GRK7 OI

KRLKKKGGEKMALLE KRLKKKGGEKMALLE KRLKKKGGEKMALLE KRLKKKHGEKMALLE KRLKKKGGEKMALLE VKNTGKMYACKKLDK VKNTGKMYACKKLDK VRNTGKMYACKKLDK VKNTGQMYACKKLCK VKNTGQMYACKKLCK RVLGKGGFGEVCAVO RILGKGGFGEVCAVQ RILGKGGFGEVCAVQ RVLGKGGFGEVCAVQ RVLGKGGFGEVCAVQ LFEMOPVSDKYFTEF LFEMOPVSDKYFTEF EYEKQPITEKYFYEF EYEKQPISDKYFYEF LFEMOPVSDKYFTEF GRK7 SGK064 69087 ST GRK7 OL GRK7

## Fig. 3A

AELROKLSINEHSLC AELROKLSLNFHSLC AELROSLSPHFHSLC AALRSTLDKDFESLC

ORRESTALPGLOGC ORRRESLALPGLOGC ORRRESLALPGPOGC KKRRRSLSLPKPEQC

YLQARKPSDCDSKEL YLOARKPSDCDSKEL YLOAR-KTDSDSREL YLKAQ---GGDDKEM

MVDMGALDNLIANTA

MVDMGALDNLIANTA M-DMGGLDNLIANTA

SGK064

69087 ST GRK7 GRK7 KKRRRSLSLPKPEQC VALRESIEKDFTLLC

YLKAQ---GGDDKEM

MCDMGGLDNLVANTA MCDMGGLDNLVANTA

GRK7

TRGLDMSRV	TRGLDMSRV	TRGLAMSRV	EKGIEMERI	YDGKGVDKGIEMKRI	VEMKGGKPITORAGE	VEMKGGKPITQRAGT	VEVQDDKPITQRAGT	VEIPVGKTTTQKAGT	DMDIIYRDMKPENVL LDSQGQCRLSDLGLA IEIAPGKTVTQMAGT	EKVSKEDLKORTLOD	EKVSKEDLKQRTLQD	EKVSKEDLKERTMKD	EKVEKEEVQRRIINE
KEILEKVSSPFIVSL AYAFESKTHLCLVMS LANGGDLKFHIYNVG TRGLDMSRV	KEILEKVSSPFIVSL AYAFESKTHLCLVMS IMNGGDLKFHIYNVG TRGLDMSRV	KEILEKVNSPFIVSL AYAFESKTHLCLVMS LMNGGDLKFHIYNVG TRGLAMSRV	KKILEKVNSLFIVSL AYAYDTKTHLCLVMS LMNGGDLKYHIYNIGEKGIEMERI	KQILEKVNSLFLVNL AYAYDTKTHLCLVMT LMNGGDLKYHIYNIG YDGKGVDKGIEMKRI	IFYSAQIACGMIHIH ELGIVYRDMKPENVI LDDIGNCRISDLGIA VEMKGGKPITORAGT	ELGIVYRDMKPENGL LDDLGNCRLSDLGLA VEMKGGKPITQRAGT	GLGIVYRDLKPENVL LDDLGNCRLSDLGLA VEVQDDKPITQRAGT	NMDIVYRDMKPENVL LDSQGQCRLSDLGLA VEIPVGKTTTQKAGT	LDSQGQCRLSDLGLA	NGYMAPEILMEKVSY SYPVDWFAMGCSIYE MVAGRIPFKDYK EKVSKEDLKORTLOD	NGYMAPEILMEKVSY SYPVDWFAMGCSIYE MVAGRIPFKDYK EKVSKEDLKQRILQD	NGYMAPEILMDKASY SYPVDWFAMGCSIYE MVAGRIPFKDFK EKVSKEDLKERIMKD	MVAGYTPFKGPEAKK
AYAFESKTHLCLVMS	AYAFESKTHLCLVMS	AYAFESKTHLCLVMS	AYAYDTKTHLCLVMS	AYAYDTKTHLCLVMT	ELGIVYRDMKPENVL	ELGIVYRDMKPENGL	GLGIVYRDLKPENVL	NMDIVYRDMKPENVL	DMDI I YRDMKPENVL	SY PVDWFAMGCSIYE	SYPVDWFAMGCSIYE	SYPVDWFAMGCSIYE	RISVDWWALGCSIYE
KEILEKVSSPFIVSL	KEILEKVSSPFIVSL	KEILEKVNSPFIVSL	KKILEKVNSLFIVSL				ST GRK7 IFYTAQMTCGVLHLH	OL GRK7 IYYTAQITTGMLQLH	CC GRK7 IHYTAQITTGILHLH	NGYMAPEILMEKUSY	NGYMAPEILMEKVSY		OL GRK7 GAYMAPEILTETP-Y RISVDWWALGCSIYE MVAGYTPFKGPEAKK EKVEKEEVQRRIINE
69087	SGK064	ST GRK7	OL GRK7	CC GRK7	69087	SGK064	ST GRK7	OL GRK7	CC GRK7	69087	SGK064	ST GRK7	OL GRK7

TOSTATE COSTANOS

TINFPRIEAGLIEPP TINFPRLEAGLIEPP TVNFPRLEAGLVEPP SINFARLEAGLIDPP SINFPRIEAGLVDPP SREKSDDPRKHHFFK SREKSDDPRKHHFFK SREKADDPRKHPFFQ CKG--DDPRKHEWFK VIQQFLKKKIDERLG MRNNMEDPRKHEWFK ICRLFLAKK PEORLG ICRLFLAKKPEORLR ICRLFLAKKPEORLG IIKQFLKKKIDERLG EPKFEHKNFNAPTID EPKWEHKCFDAPTKD EVKECHDNETEEAKD EVKFQHDNFTEEAKD EVAFHHENFTEETKD 69087 GRK7 GRK7 SGK064 ST GRK7

OI

RISVDWWALGCSIYE MVAGYTPFKGPESKK EKVEKEEVQRRILNE

GAYMAPEILSKTP-Y

GRK7

AWOEELIETGLFEEL AWQEEIIETGLFEEL AWOKEMIDTGLFDEL QWQQEMIETGLFDEL AWOEEI IETGLFEEL DKQFFQRFSTGAVPV DDKFFKEFSTGAVPI DKOFFKNFATGAVPI DKQFFKNFATGAVPI DEKFFKEFSTGAVSI IDDESEVRGVEEDDK IDDESEVRGVEEDDK IAEFSEIKGIEFDAK IAEFSEIKGIEFDAK IDDFSEVRGVEFDDK WVPKPNVVYAKDIGD WVPKPNVVYAKDIGD FVPDPSVVYAKDIAE FVPDPSVVYAKDIAE FVPDPSVVYAKDVDE GRK7 GRK7 69087 SGK064 ST GRK7 OI.

69087 NDPNRPTGCEEGNSS K-SGVCLLL GKO64 NDPNRPTGCEEGNSS K-SGVCLLL

SGK064 NDPNRPTGCEEGNSS K-SGVCLLL ST GRK7 NDPNRPSGDGKGDSS K-SGVCLLL OL GRK7 NDPNRKESSGCLDDD KKSGTCTLL CC GRK7 NDPNRKEGAGGGDDE KKSGTCALL Fig. 3C

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20 40 120 09 180 80 240 001 300 120 360 140 120 SGC AAC 300 AAG 360 300 CTG 3GGGCGAAGAGAGGCTGAACCCGTCCGCTGCCCGGGCGGTGGAGCCCCCACGGCGAGGCGCTGCGCCGGCGGTGGAGA ø z Ø × SIG SIC 266 333 300 CAC AGC ď > ĸ Ø н GAC IGC AAG 909 909 3333 360 Ω ט Ø ŋ ď × Ø PGC PGC 3GT SEC 225 LTG LL U G Ø н Н Н Ø SGC CAG FGG :AG SCG SCG П ĸ Ø Ø Ø Д Д IAC o SAG IGC 2225 TAC 262 SGC Ы U ĸ Ø Ж ĸ IGC STA 300 300 CAG 282 16C α U > Ø Ø ĸ Ŋ ICI SGC ACA CAG AGC 300 3AG Ø Д Ø O 口 Н Ø CAA 3AG CAG LTG 366 3AA 360 O 国 国 G O н Ö AGA ICG ATC SGG LTG 333 TTC П Ø ы ĸ ß ш 266 PTC SIG CCA CII CAG SAC н Ø ĸ ᇤ  $\triangleright$ Д Ω ICC GAC TCC ATC SCG TCT TIC Ω Н Д Ø Ē Ø ß TCG IGG GAA SAC 290 Ø B ഥ ĸ Ω ø r ICC ATC AAG ATC SGC CTC SGT G × н Ø н ĸ SIG ATG 380 SAG 300 SCG CGC Σ 24 闰 ⋖ Д œ CAG SCG 333 SAT SCG CC 300 Ø Ø Ω Д ß Ø Д 908 PGG. A TTC CIC 306 SSS Ø M Ēų Н Ø Д 909 SSS IGC SCG 3AG AGG 360 Ø ш G U Д 闰 ĸ TCG ATG SAG 360 SCG SSS GAG r ß Σ 国 Д Д 回 ATG SGC rAC CAC CCG 360 U × н Σ ĸ Д Ø

Fig

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160 480	180 540	200	220 660	240 720	260	280 840	300
F	H CAC	S AGC	S AGC	PCCG	S AGC	K AAG	S AGC
9 9	9 9	A GCC	S TCG	P	L CTG	CCC	E
N AAC	R CGC	A GCC	V GTG	P	E GAG	R AGG	F
PCCC	R	A GCG	S	Q CAA	A GCC	N AAC	P
V GTG	P	P	A GCA	K AAA	A GCC	V GTC	GGG
L	N AAC	T ACG	P	EGAG	999	W	S TCG
IATC	P	A GCC	R CGG	K AAG	A GCC	D	H
9 9	s AGC	S TCG	K AAG	A GCC	A GCG	Q CAG	9 9
N AAC	Q CAG	999	H	A GCA	TACC	EGAG	H
V GTG	CGC	N AAC	A GCC	A GCG	S	GGA	O CAG
CCC	N AAT	M ATG	9 660	EGAG	L CTG	S TCT	H CAC
PCCG	L CTG	L	L CTG	R CGT	S AGC	GGG	CIG
PCCG	E GAG	P	D GAT	Q CAG	D GAC	R	A GCG
Q CAG	P	V GTG	TACC	E	A GCC	S AGC	L
PCCG	PCCG	L	PCCC	H	P	K AAG	L
TACG	E	TACC	Q CAG	E	9	9	T ACG
PCCG	E	P	A GCG	V GTG	R CGG	A GCG	D GAC
PCCG	L	P CCG	S	A GCC	H	G GGT	7 CGC
Q CAG	K AAG	V GTG	9 995	A GCT	A GCG	EGAA	V GTG
A GCC	S	A GCG	L CTG	S AGC	PCCT	A GCG	T ACC

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999	PCCA	S	CCC	S	D GAT	S	GGA
N AAC	E GAA	TACA	P CCA	O CAG	K AAA	S	T ACA
A GCC	PCCA	S	P	9 9	S TCA	P	N AAC
E	S TCT	$_{ m CTG}$	P	N AAT	A GCC	S	9 66C
F	CCC	W	S TCT	Q CAG	H CAT	CCC	A GCA
GGT	K AAG	P	V GTG	GCC GCC	S AGT	P	G GGA
$_{ m TTG}$	R AGG	Q CAG	F	A GCG	9	S AGT	Q CAG
$_{ m TTG}$	K AAA	A GCC	S	E	ი მმმ	NAAAC	9 9
R AGG	R AGG	E	S	PCCT	A GCA	SAGC	GGG
GGC	A GCA	GGA	T ACA	PCCG	N AAT	N AAT	V GTG
A GCA	T ACA	NAAAC	PCCT	TACA	D GAC	R AGG	E GAG
TACT	R AGA	IATC	TACT	TACC	A GCA	R AGG	R AGA
$_{ m CTG}$	A GCA	K AAG	M ATG	R CGG	V GTA	TACC	P
A GCC	V GTT	PCT	P CCC	N AAC	L TTA	TACT	9
P	A GCA	P CCC	I ATC	S	I ATC	S	L CTG
E GAG	K AAA	9	K AAG	H	L CTG	H	R AGG
K AAG	S TCT	V GTC	L	PCCT	A GCC	V GTT	R AGA
K AAG	GGG	E	666	S TCA	A GCA	O CAG	Q CAA
F	N AAC	G GGT	E	A GCC	M ATG	NAAC	N AAC
K AAG	A GCC	E GAA	TACA	TACT	P CCC	A GCC	M ATG

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Ø	GCA	>	GTG	×	AAA	ტ	299	>	GTG		
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ω	TCT	н	CAT	ß	AGC	ы	CII	Ŋ	GGA		
ω	TCC	EH	ACC	Ø	CAA	Д	CCI	А	GCT		
Ω	GAC	Ω	GAC	吆	AGA	ပ	IGC	Н	CII		
ш	CCG	ы	GAG	ಬ	TCC	×	AAA	н	AIC		
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ы	CTG	υ	IGC	Д	CCT	ტ	GGA	A	000	ĸ	AGA
ტ	GGA	Н	CTG	>	GIC	ß	AGT	W	TGG	Ħ	GAG

TITATTATCCTGGTGACAGTTACCGTTCTATGTAGGCTGTGACTTGCGCTGCTTTTTTAGAGCACTTGGCAAATCAGAA ataiccaagacaagggaaatgtagacttcataaacatggctgtataatttttgattttttgaatacattgtgttcta TGCCTTACTGTCTGTCATTACTTATTGCTGGCCCCTTTCTCAGGCCGGAGGCCAAGTGGTGGTGAAAGGAAAGGAAATGA

### Fig. 4

TOUTHER LONGO

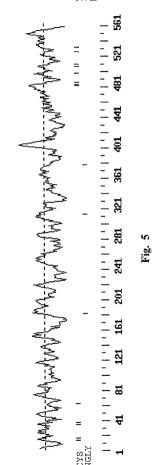
STGATCAGTTGTAAGATTACAATGCTGCATGCTAGTTGGTTACATAAGATACAATTCCAGTGATGGAAGGCGGTTATAA TGGATGGTGTGTGTACAAGATGGCACTGCCATCTTTGAGCAGAGCCCAGCTCTGCAGCGCCACTTCATTTTAAAC acceta gaggetetigetegetigetegetigetectettatettiga aa gaggetigea agaga ageta cagge caggea arte TCGAACGGGCATGTTGTCAAGTGGGCATGCCACTGGGAAATACCACCAGTTTACCCTGAAAAAATATGTCCTCAGAGGAGT CCTATACCCTGTTTCTAGTGAGTGCTGAATACAGTATGGTACAATGA

Fig. 41

Title: "69087, 15821, and 15418, Methods and Compositions of Human Proteins and Uses Thereof Inventors: Rosana Kaneller-Libermann et al.

U.S. Patent Appl. No.: Not Yet Assigned
Express Mail # EL910396434US Attomey Docket No. 10447-52U1 Cust # 570

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RIBFVIETARQLKRA RIBFVIETARQLKRA 	QQQQLGHGGPEAAPR QQQQQQQQQQQQQ QQQQQQQQQQQQQ	LAQPPTPQPPP EQRSREEYPPPVSL EQRSREEYPPPVSL	ASRRGTHGGLVTGLP ASRRGTHGGLVTGLP	AHKRPAS TPAPPGAPGGPACLG TPAPPGAPGGPACLG
SEPVCRGCVNYEGAD SEPVCRGCVNYEGAD	AAKPPPLSAKDILLQ AAAAAAAAAAQQQ LLPGRPLPRAAAAAQ	aas lsaaaaaaaaav lsaaaaaaaaav	LNRQSPNP LNRQSPNSSSAAASV LNRQSPNSSSAAASV	LGSAQPTDLG LPPPPHALGSRGPP LPPPPHALGSRGPP
LCDLPRMPWAMIWDF LCDLPRMPWAMIWDF	CFPEGRS PPGAAASA VGVKTVALSAKEAAA RIRDRDSAPAEAGAR	RPPRLGSDFGSSRP- KPAVLAAPSGLERYG KPAVLAAPSGLERYG	PNGFSKleeppe PNGFPKPTPEEGPPE PNGFPKPTPEEGPPE	LVPLMNGSATPAAAS LLPQTLINGPASAAV LLPQTLINGPASAAV
MSAAQVSSSRRQSCY MSAAQVSSSRRQSCY	HGHGCFQDGRSPGPPP	APQALERYPLAAAAE QQQQQQQLNHVDGSS QQQQQQLNHVDGSS	GSSSHTARLPNGIGG	RRGHAVPPT NPGGGGGPQLIVPPN NPGGGGGPQLIVPPN
15821 C14orf4 KIAA1865	15821 C14orf4 KIAA1865	15821 C14orf4 KIAA1865	15821 C14orf4 KIAA1865	15821 C14orf4 KIAA1865

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15821 C14orf4 KIAA1865	GIPGVSATSSSASSS GIPGVSATSSSASSS	AAVEHEQREAAAKEK TSSSVAEVGVGAGGK TSSSVAEVGVGAGGK	QPPPPAHRGPADSLS RPGSVSSTDQERELK RPGSVSSTDQERELK	TAAGAAELSAEGAGK EKQRNAEALAELSES EKQRNAEALAELSES
15821 C14orf4 KIAA1865	SRGSGEQDWVNRPKT LRN-RAEEWASKPKM LRN-RAEEWASKPKM	VRDTLLALH VRDTLLTLAGCTPYE VRDTLLTLAGCTPYE	VRFKKDHSLLGRVFA VRFKKDHSLLGRVFA	FDAVSKPGMDYELKL FDAVSKPGMDYELKL
15821 C14orf4 KIAA1865	FIEYPTGSGNVYSSA FIEYPTGSGNVYSSA	SGVAKQMYQDCMKDF SGVAKQMYQDCMKDF	GRGLSSGFKYLEYEK GRGLSSGFKYLEYEK	QHGHSGP KHGSGDWRLLGDLLP KHGSGDWRLLGDLLP
15821 C14orf4 KIAA1865	FESKEKKE EAVRFFKEGVPGADM EAVRFFKEGVPGADM	LPQPYLDASCPMLPT	ALTAGRLL ALVSLSRAPSAPPGT ALVSLSRAPSAPPGT	GFEANGANGSKAVAR GALPPAAPSGRGAAA GALPPAAPSGRGAAA
15821 C14orf4 KTAA1865	TARKRKPSPEPEGEV SLRKRKASPEPPDSA SLRKRKASPEPPDSA	GPPKINGEAQPW EGALKLGEEQQRQQW EGALKLGEEOOROOW	LSTSTEGLKI PMTPT MANQSEALKLTMSAG MANOSEALKLTMSAG	SSFVSPP GFAAPGHAAGGPPPP GFAAPGHAAGGPPPP

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QVHSTTRR-NSNS	SSLATSAPLCCTLCH	PLVGSNVPWAFMQGE	
SVHSTTASARRNSSS	SPMANSGPLCCTICH	PLVGSNVPWAFMQGE	
SVHSTTASARRNSSS	SPMANSGPLCCTICH	PLVGSNVPWAFMQGE	
VADNAGGSHASKDAN	NTGGLEPVHPASLPD	QGASGEVYCPSGEKC	
VADTLGTAHSPKDGS	AHPGMDQVHPQNIPD	QGATGEVYCPSGEKC	
VADTLGTAHSPKDGS	AHPGMDQVHPQNIPD	QGATGEVYCPSGEKC	
AAQ-NGQSPMAALIL	REVGGQGAG	SHKFCFPCSRQSIKQ	DS
SAPQNGPSPMAALMS	RNGDLNLQVAPPPPS	SHKFCFPCSRESIKA	DP
SAPQNGPSPMAALMS	RNGDLNLQVAPPPPS	SHKFCFPCSRESIKA	DP
PPTASPHSNRTTPPE	PPSPSSMN-ORRLGP	ERLEDTHFVQCPSVP	IATILAGDVKVKKER
PPPLGPHSNRTTPPE	PVSPASVPGORRLAS	ERLEDTHFVQCPSVP	IATILAGDVKVKKER
PPPLGPHSNRTTPPE	PVSPASVPGORRLAS	ERLEDTHFVQCPSVP	IATILAGDVKVKKER
15821	15821	15821	15821
C14orf4	C14orf4	C14orf4	C14orf4
KIAA1865	KIAA1865	KIAA1865	KIAA1865

FIG. 60

LSTSTEGLKIPMTPT MANQSEALKLTMSAG XSTSTEGKKIPMTPTMPTMSAG	VADNAGGSHASKDAN VADTLGTAHSPKDGS VADTLGTAHSPKDGS VADNAGGSHASKDAN VADNAGGSHASKDAN VADNAGGSHASKDAN VADNAGGSHASKDAN	NTGGLEPVHPASLPD AHPGMDQVHPQNIPD AHPGMDQVHPQNIPD NTGGLEPVHPASLPD NTGGLEPVHPASLPD NTGGLEPVHPASLPD AHPGMDQVHPQNIPD
GPPKINGEAQPW EGALKLGEEQCRQQW EGALKLGEEQCRQQW GPPKINGEAQPW	AAQ-NGQSPMAALII SAPQNGPSPMAALMS SAPQNGSSPMAALII AAQ-NGQSPMAALII AAQ-NGQSPMAALII AAQ-NGQSPMAALII SAPQNGPSPMAALII	REVGGGGAG RNGDLNLQVAPPPPS RNGDLNLQVAPPPPS REVGGGAG REVGGQGAG REVGGQGAG REVGGQGAG
TARKRKDSPEPEGEV SLRKRKASPEPPDSA SLRKRKASPEPEBEGEV TARKRKPSPEPEGERV	PPTASPHSNRTTPPE PPLGPHSNRTTPPE PPPLGPHSNRTTPPE PPTASPHSNRTTPPE PPTASPHSNRTTPPE PPTASPHSNRTTPPE PPTASPHSNRTTPPE	PPSPSSMN-QRRLGS PVSPASVPGQRRLAS PVSPASVPGQRRLAS PPSPSSMN-QRRLGP PPSPSSMN-QRRLGP PPSPSSMN-QRRLGP PPSPSSMN-QRRLGP
GFEANGANGSKAVAR GALPPAAPSGRGAAA GALPPAAPSGRGAAA VAR	SSEVSPP GFAAPGHAAGGPPP GFAAFGHAAGGPPPP SSFVSPP SSFVSPP SSFVSPP GFAAPGHAAGGPPPP	QVHSTTRR-NSNS SVHSTTASARRNSSS SVHSTTASARRNSSS QVHSTTRRNSNS QVHSTTRRNSNS SVHSTTRRNSNS
15821 C14orf4 KIAA1865 736 HTRM dn740_3 Unnamed	15821 C14orf4 KIAA1865 736 HTRM dn740_3 Unnamed	15821 C14orf4 KIAA1865 736 HTRM dn740_3 Unnamed

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## FIG. 74

# TOTALES TIPET

15821	SSLATSAPLCCTLCH	SSLATSAPLCCTLCH ERLEDTHFVQCPSVP	SHKFCFPCSRQSIKQ QGASGEVYCPSGEKC	QGASGEVYCPSGEKC
C14orf4	SPMANSGPLCCTICH	ERLEDTHFVQCPSVP	SHKFCFPCSRESIKA	QGATGEVYCPSGEKC
KIAA1865	SPMANSGPLCCTICH	ERLEDTHFVQCPSVP	SHKFCFPCSRESIKA	QGATGEVYCPSGEKC
736	FSLATSAPLCCTLCH	ERLE DNH FVQC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
HTRM	SSLATSAPLCCTLCH	ERLEDTHFVQCPSVP	SHKFCFPCSRQSIKQ	QGASGEVYCPSGEKC
dn740 3	SSLATSAPLCCTLCH	ERLEDTHFVQCPSVP	SHKFCFPCSRQSIKQ	QGASGEVYCPSGEKC
Unnamed	SPMANSGPLCCTICH	ERLEDTHFVQCPSVP	SHKFCFPCSRESIKA	QGATGEVYCPSGEKC
15821	PLVGSNVPWAFMQGE	IATILAGDVKVKKER	DS	
C14orf4	PLVGSNVPWAFMQGE	IATILAGDVKVKKER	DP	
KIAA1865	PLVGSNVPWAFMQGE	IATILAGDVKVKKER	DP	
736			;	
HTRM	PLVGSNVPWAFMQGE	IATILAGDVKVKKER	DS	
dn740 3	PLVGSNVPWAFMQGE	IATILAGDVKVKKER	DS	
Unnamed	PLVGSNVPWAFMQGE	IATILAGDVKVKKER	DP	

## FIG. 71

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18 54	38	58 174	78 234	98 294	118 354
, D	N AAC	V GTG	D GAC	R AGG	L
S C	A GCC	E	R	M ATG	C TGC
G CCC	A GCC	V GTG	A GCT	D GAT	CIG
Q G CAG	V GTG	S	D GAT	I ATC	S TCA
Q C CAG	GGT	A GCC	T	T	A GCC
V T GTC	N AAT	N AAT	V GTT	H	S
G G GGT	SAGC	V GTC	P	I ATC	R
O T CAG	LCTC	I ATT	V GTG	CIT	SAGC
S A TCT	F	A GCC	K AAG	DGAT	V GTG
S A TCA	L	TACC	I ATA	A GCT	GGA
S I TCA	S AGC	I ATC	Y	IATT	A GCT
TTT	R AGA	CGC >	O CAG	CCC	MATG
S TCC	T ACC	N AAT	I ATT	D GAC	သည်။
S G TCC	I ATA	SAGC	ည်မှ	F	Н
C GCG	O CAA	S	E GAG	F	L
S A TCC	S	L	F	DGAC	L
A GCA	F	CIL	F	Y	TACG
3 ACA	S AGC '	CIC	V GTA	CIC	RCGT
M G ATG	Y TAC 1	K AAA (	N AAC (	R CGT (	9 9
CCTTG	I ATC 1	D GAC A	V GTC A	S TCG (	O CAG (

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CTG CTG

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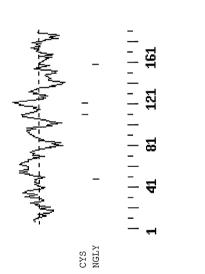
TGGCGGCGGCGGCTGCTTGTTGACTTGCTTGGTAAGTGTTTGTGTCCCGAACCAGCGTAGAGAGACCTCGGACCAGCCG GTCGACCACGCGTCCGGGAGACACAGAAAGAGGGTGGTGGTCGATAGCTGGTCCTCTTTCTCCAACACCTAGCCTGAGACT

Ехрі	ess Mail # ELS	7	1 / 23
178 534	190 573	-	.1 , 23
D GAC		TAAA	
PCCT		rtagi rtacc	
I ATC		TTTG	
N AAC		ACAT. AGTA	
GGT		ACTG	
V GTA		SAAC! FTGA!	
P		ACTTO	
S TCG	* TAA	CTGA! FTGG!	
N AAC	M ATG	AAGA(	8B
I ATC	S TCA	CACCI	Fig.
M ATG	I ATA	CTTG	
	M ATG	CGAT	
V GTG	TACG	CCAT( GCAA( CA	
TACC	R CGT	TCTG AAGG	
N AAC	L	GACA GTTA ACAT	
N AAC	D GAC	CCCT	5
N A	K AAG	CAGC	1
F	E GAG	CGGC	
L	Y	AACC	
K AAG	I ATC	GCC	4
	R M I N S P V G N I P D CGC ATG ATC ACT GAC	L F N N N T V R M I N S P V G N I P D CTG TTI AAT AAC ACC GTG CGC ATG ATC AAC TCG CCG GTA GGT AAC ATC CCT GAC Y E K D L R T M I S M *  TAT GAG AAG GAC CTA CGT ACG ATG ATA TCA ATG TAA	The construction of the control of

Title: "69087, 15821, and 15418, Methods and Compositions of Human Proteins and Uses Thereof" Inventors: Rosana Kapeller-Libermann et al.

U.S. Patent Appl. No.: Not Yet Assigned
Express Mail # EL916936434US Attorney Docket No. 10147-52U1 Cust # 570

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15814		MTASABSFSSSQCVQQES11SFSQLTASSFFSSGVARMUALLESSGVATT	2
DSP-8	7	MTASASSFSSQCVQQPSIYSFSQITRSLFLSNGVAANDKLLLSSNRITAIVNASVEVVN 60	09
15814	61	15814 61 VEFEGIQYIKVPVTDARDSRLYDFFDPIADLIHTIDMRQGRTLLHCMAGVSRSASLCLAY 120	120
DSP-8	61	61 VFFEGIQYIKVPVTDARDSRLYDFFDPIADLIHTIDMRQGRTLLHCMAGVSRSASICLAY 120	120
15814	121	15814 121 LMKYHSMSLLDAHTWTKSRRPIIRPNNGFWEQLINYEFKLFNNNTVRMINSPVGNIPDIY 180	180
DSP-8	121	DSP-8 121 LMKYHSMSLLDAHTWTKSRRPIIRPNNGFWEQLINYEFKLFNNNTVRMINSPVGNIPDIY 180	180

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EKDLRTMISM

181 181

15814 DSP-8